

AMENDMENTS TO CLAIMS

Applicants have provided a listing of the claims for Examiner's reference. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Previously Presented) A method for controlling flow through a formation and a pipe within a formation, the process comprising the steps of:
 - providing a base pipe having an upper end and a lower end;
 - providing an upper screen attached concentrically around the upper end of the base pipe;
 - providing a lower screen attached concentrically around the lower end of the base pipe;

providing a valve located between the upper screen and the lower screen;
and

providing a valve screen attached concentrically around the valve, wherein
the diameter the valve screen is greater than the diameter of the upper screen
and the lower screen;

providing a valve motor mechanically connected to said valve, wherein
said valve motor opens and closes said valve; and

providing a valve controller communicatively connected to said valve
motor, wherein said valve controller instructs the valve motor as to a
configuration of the valve.

~~a valve located between the upper screen and the lower screen; and~~
~~a valve screen attached concentrically around the valve;~~
~~wherein the diameter the valve screen is greater than the diameter of the upper~~
~~screen and the lower screen.~~

~~providing a pipe within a formation wherein the pipe comprises at least~~
~~one hole extending from the ID of the pipe to the OD of the pipe;~~

~~connecting a screen to the pipe adjacent to the at least one hole of the~~
~~pipe;~~

~~providing a valve to the pipe, wherein the valve is effective to control fluid~~
~~flow through at least one hole of the pipe;~~

~~providing a screen section above the valve;~~

~~providing a screen section below the valve; and~~

- ~~providing a controller effective to adjust the position of the valve;~~
- ~~wherein fluid flows through both the screen section above the valve and the screen section below the valve toward the valve.~~
10. (Original) The method of claim 9 wherein the controller is operatively associated with the valve by an electrical cable.
11. (Original) The method of claim 9 wherein the controller is operatively associated with the valve by an optical fiber.
12. (Original) The method of claim 9 wherein the controller is operatively associated with the valve by a hydraulic cable.
13. (Original) The method of claim 9 wherein the controller is operatively associated with the valve by a pneumatic cable.
14. (Currently Amended) The method of claim 9 further comprising the step of providing a data sensor communicatively connected to the upper screen or the lower screen ~~the screen section above the valve or the screen section below the valve.~~
15. (Currently Amended) The method of claim 9 further comprising providing a data transmitter communicatively connected to the upper screen or the lower screen ~~the screen section above the valve or the screen section below the valve.~~
16. (Currently Amended) The method of claim 9 further comprising providing a data recorder communicatively connected to the upper screen or the lower screen ~~the screen section above the valve or the screen section below the valve.~~
17. (Currently Amended) An adjustable wellscreen comprising:
- a base pipe defining a path for fluid communication to a production tubing;

at least one valve;

an upper screen section located above the valve surrounding at least a portion of the length of the base pipe;

a valve screen surrounding at least a portion of the valve;

a lower screen section located below the valve surrounding at least a portion of the length of the base pipe;

~~at least one valve effective to provide controllable communication between a volume between the screen section above the valve, the screen section below the valve, and the base pipe and a volume within the base pipe;~~

a volume defined between the valve screen and the base pipe into which fluids that have flowed through any screen may flow;

at least one valve motor effective to change the position of the valve;

at least one sensor effective to determine a physical condition of fluids near the valve ~~screen section~~ and to provide a signal indicative of that physical condition; and

a controller effective to command the valve motor to change the position of the valve in response to the signal from the sensor;

wherein the valve is effective to provide controllable communication between the volume and the interior of the base pipe.

18. (Currently Amended) The wellscreen of claim 17 wherein the sensor detects pressure differential across upper screen or the lower screen~~the screen section above the valve or the screen section below the valve.~~

19. (Original) The wellscreen of claim 17 wherein the sensor detects the

presence of water.

20. (Original) The wellscreen of claim 17 wherein the sensor detects the temperature of fluids flowing through the wellscreen.
21. (Original) The wellscreen of claim 17 wherein the sensor detects the phase of fluids passing through the wellscreen.
22. (Canceled)
23. (Currently Amended) The wellscreen of claim 22 wherein the upper screen and the lower screen ~~the screen section located above the valve and the screen section located below the valve~~ have essentially the same lengths.
24. (Currently Amended) The wellscreen of claim 17 wherein the pressure drop for fluids flowing through the upper screen and the lower screen ~~the screen section above the valve and the screen section below the valve~~ will be greater than the pressure drop of the fluids flowing from the upper screen and the lower screen to the valve through the volume ~~the screen section above the valve and the screen section below the valve the screen sections to the valve through the volume between the base pipe and the screen section~~.
25. (Original) The wellscreen of claim 17 wherein the sensor communicates with the controller using wireless communication.
26. (Original) The wellscreen of claim 17 wherein the controller communicates with the valve using wireless communications.
27. (Previously Presented) The wellscreen of claim 17 wherein the valve is powered by an electrical power supply and the sensor communicates with the valve using a time varying electrical signal imposed upon an electrical power supply to the valve.

28. (New) An adjustable well screen assembly comprising:

a base pipe having an upper end and a lower end;

an upper screen attached concentrically around the upper end of the base pipe;

a lower screen attached concentrically around the lower end of the base pipe;

a valve located between the upper screen and the lower screen; and

a valve screen attached concentrically around the valve;

wherein the diameter the valve screen is greater than the diameter of the upper screen and the lower screen.

29. (New) The adjustable well screen assembly of claim 28 further comprising:

a valve motor mechanically connected to said valve, wherein said valve motor opens and closes said valve; and

a valve controller communicatively connected to said valve motor, wherein said valve controller instructs the valve motor as to a configuration of the valve.

30. (New) The well screen assembly of claim 29 wherein the controller is connected to the valve via a communication means utilizing an electrical cable.

31. (New) The well screen assembly of claim 29 wherein the controller is connected to the valve via a communication means utilizing an optical fiber.

32. (New) The well screen assembly of claim 29 wherein the controller is connected to the valve via a communication means utilizing a hydraulic cable.

33. (New) The well screen assembly of claim 29 wherein the controller is connected to the valve via a communication means utilizing a pneumatic cable.

34. (New) The well screen assembly of claim 29 further comprising a data sensor communicatively connected to the well screen

35. (New) The well screen assembly of claim 29 further comprising a data transmitter communicatively connected to the well screen.

36. (New) The well screen assembly of claim 29 further comprising at least one data recorder communicatively connected to the well screen.